Work to create piecewise function

$$f(x) = \begin{cases} \_\_\_\_, & x \leq \_\_ \\ \_\_\_\_, & x > \_\_ \end{cases}$$

$x \leq$ ___

2 pt $(x_1, y_1)(x_2, y_2)$

$m =$

$y - y_1 = m(x - x_1)$

$y = mx + b$

$x \geq$ ___

3 pts $(x_1, y_1)(x_2, y_2)(x_3, y_3)$

① (x_1, y_1)
② (x_2, y_2)
③ (x_3, y_3)

① ___
② ___
④ ___

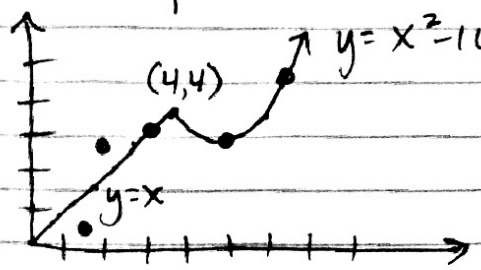
② ___
③ ___
⑤ ___

④ ___
⑤ ___
⑥ ___

$a =$ $b =$ $c =$

$y = ax^2 + bx + c$

Wk to prove continuity



PDC (4,4)

$y=x$	$y=x^2-10x+28$
$4=4$	$4=(4)^2-10(4)+28$ $4=16-40+28$ $4=4$
Therefore (4,4) is a point on the line $y=x$.	Therefore (4,4) is a point on the line $y=x^2-10x+28$

Proof of accurate model

Data pt: (5,3)

$$f(x)=\begin{cases} x, & x\leq 4 \\ x^2-10x+28, & x>4 \end{cases}$$

$5>4$ so I will use $x^2-10x+28$

$3=(5)^2-10(5)+28$
$3=25-50+28$
$3=3$
Therefore (5,3) is a pt in $y=x^2-10x+28$